

Claims

[1] A process for producing an oxyalkylene polymer in which a first oxyalkylene polymer having at least two active hydrogen groups and a second oxyalkylene polymer having one active hydrogen group coexist, which comprises reacting an alkylene oxide with a first initiator having at least two active hydrogen groups and a second initiator having one active hydrogen group in the presence of a catalyst.

[2] The process for producing the oxyalkylene polymer according to claim 1, wherein a GPC (gel permeation chromatography) peak top molecular weight of the second oxyalkylene polymer is not more than 0.6 times a GPC peak top molecular weight of the first oxyalkylene polymer.

[3] The process for producing the oxyalkylene polymer according to claim 1 or 2, wherein a viscosity of the oxyalkylene polymer in which the first and second oxyalkylene polymers coexist is not more than 3/4 a viscosity of the first oxyalkylene polymer.

[4] The process for producing the oxyalkylene polymer according to any one of claims 1 to 3, wherein 100 parts by weight of the first oxyalkylene polymer and not more than 300 parts by weight of the second oxyalkylene polymer coexist.

[5] The process for producing the oxyalkylene polymer according to any one of claims 1 to 4, wherein after the alkylene oxide is reacted with the first initiator, the second initiator

is added, and then the alkylene oxide is further reacted with the mixture.

[6] The process for producing the oxyalkylene polymer according to claim 5, wherein a feed rate of the alkylene oxide per molar amount of the second initiator after addition of the
5 second initiator is not more than 0.6 times a feed rate of the alkylene oxide per molar amount of the first initiator before addition of the second initiator.

[7] The process for producing the oxyalkylene polymer
10 according to any one of claims 1 to 4, wherein allowing the first initiator and the second initiator coexist and the alkylene oxide react in the presence of the catalyst.

[8] The process for producing the oxyalkylene polymer according to any one of claims 1 to 7, wherein a second initiator
15 represented by formula 1 is used.

R^1 -OH ... formula 1

(wherein R^1 is a monovalent organic group free from an unsaturated group and containing at least one selected from the group consisting of carbon, hydrogen, oxygen and nitrogen
20 as a constituent atom.)

[9] The process for producing the oxyalkylene polymer according to any one of claims 1 to 8, wherein the catalyst is a double metal cyanide complex catalyst.